1. $f(x)=x^2+4x$ $g(x)=3x-2$

Find $f(g(x))$ $f(3x-2)$

$(3x-2)^2+4(3x-2)$

$(3x-2)(3x-2)+12x-8$

$9x^2-6x-6x+4+12x-8$

$\boxed{9x^2-4}$

(2) Find the solution (using graphing)

$2x+y=3$

$3x-2y=8$

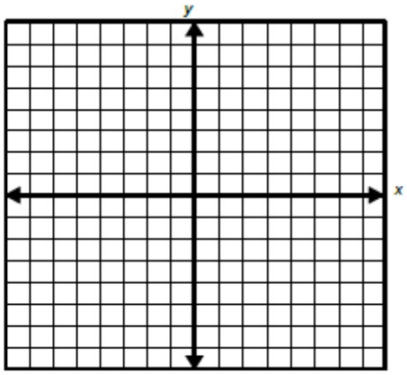
$(2,-1)$ ✓

Consistent

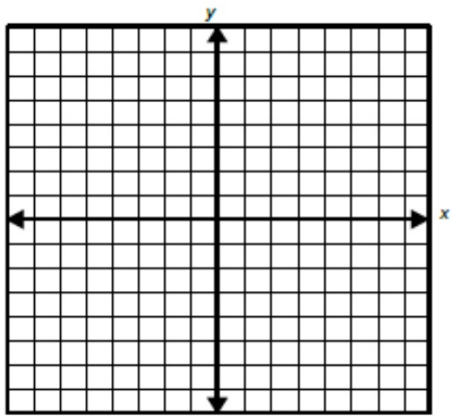
independent

Graph and classify each system. Then find the solution from the graph.

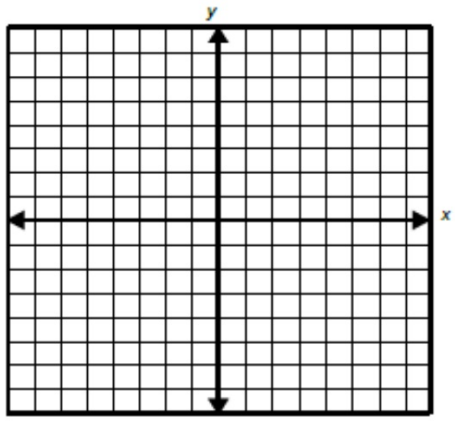
1) $\begin{cases} y = 9 - 2x \\ y = x \end{cases}$



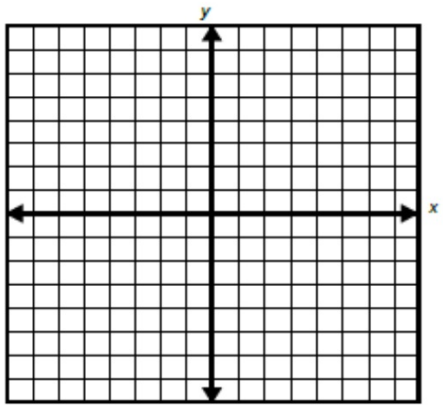
2) $\begin{cases} x + y = 2 \\ y = 2x + 5 \end{cases}$



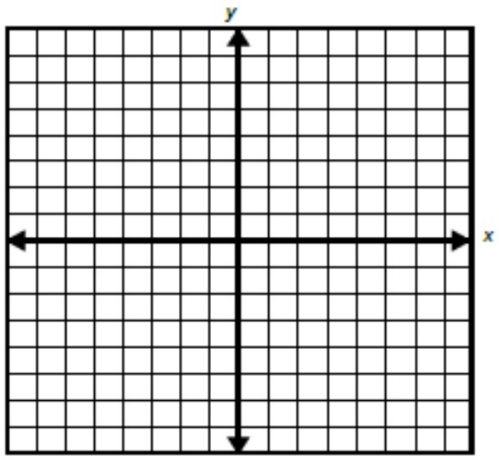
3) $\begin{cases} 2x + y = 0 \\ x - y = 6 \end{cases}$



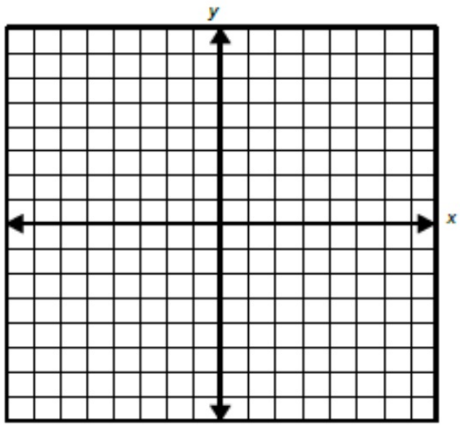
4) $\begin{cases} 3x - 9y = 0 \\ 3y + 3 = x \end{cases}$



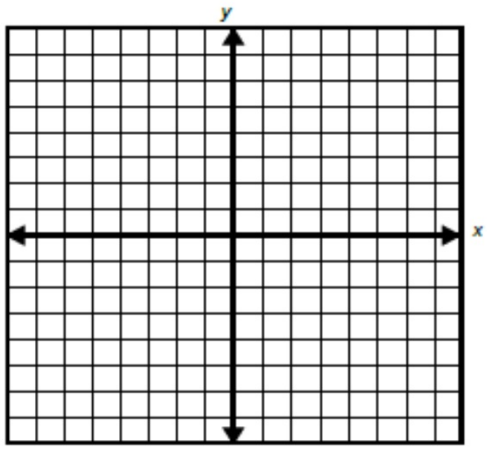
5) $\begin{cases} y = \frac{1}{2}x + 1 \\ x + 2 = 2y \end{cases}$



6) $\begin{cases} y - 2x = -5 \\ y - x = -3 \end{cases}$



7) $\begin{cases} 2y - x = 2 \\ x - 2y = 8 \end{cases}$



8) $\begin{cases} 6x - 3y = 9 \\ \dfrac{y+3}{2} = x \end{cases}$

$6x - 3y = 9$

$-6x \quad -6x$

$-3y = -6x + 9$

$\frac{-3y}{-3} = \frac{-6x}{-3} + \frac{9}{-3}$

$y = 2x - 3$

$m = 2$

$b = -3$

$2\left(\frac{y+3}{2}\right) = (x)2$

$y + 3 = 2x$

$-3 \quad -3$

$y = 2x - 3$

$m = 2$

$b = -3$